

A Few Facts...

- Kennecott Minerals Company's Bingham Canyon mine is the world's largest man-made excavation — one-half mile deep and covering 1,900 acres.
- A mountain once stood where the huge bowl is now. Approximately two-thirds of all Utah mineral production has come from the Bingham Canyon mine. More than 4 billion tons of material have been removed since open-pit operations began here in 1906.
- Bingham Canyon ore has yielded more than 11 million tons of copper metal whose cumulative sales (time of sales) of \$6 billion-plus exceed eight-fold the yields of the Comstock Lode, Klondike and California gold rushes combined.
- More than 450,000 tons of material (107,000 tons of ore, 343,000 tons of overburden) are removed daily.
- Nearly 3½ tons of overburden are removed for each ton of ore.
- Bingham Canyon ore contains less than 0.60% copper, or about 12 pounds per ton.
- Approximately 10% of the mine's total raw copper production is leached from the overburden dumps and recovered by the precipitate plant at the mouth of Bingham Canyon.
- From concentrates of milled ore and precipitate, Utah Copper Division produces some 200,000 tons of refined copper annually (under a full-production schedule) — approximately 14% of the nation's new copper.
- Utah Copper Division employs nearly 7,000 men and women at the mine, ore haulage, three concentrating plants, smelter, electrolytic refinery, power plant, laboratories and offices.

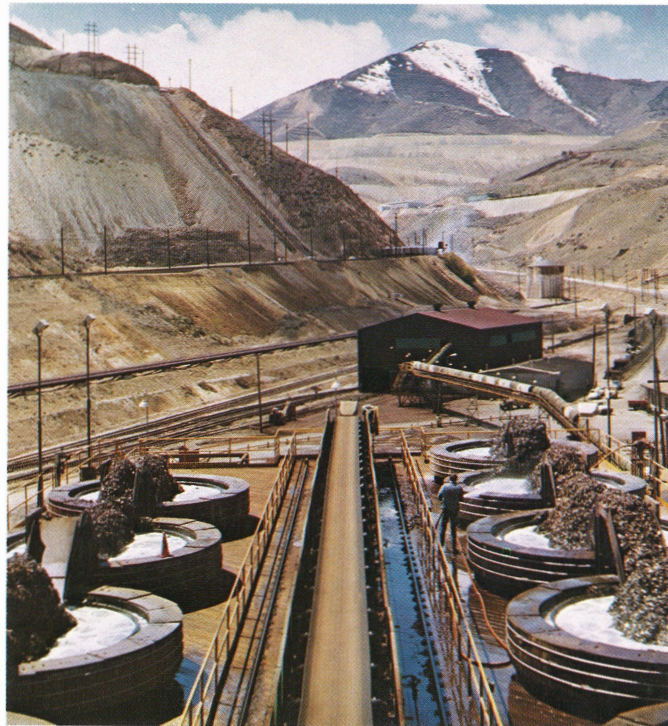
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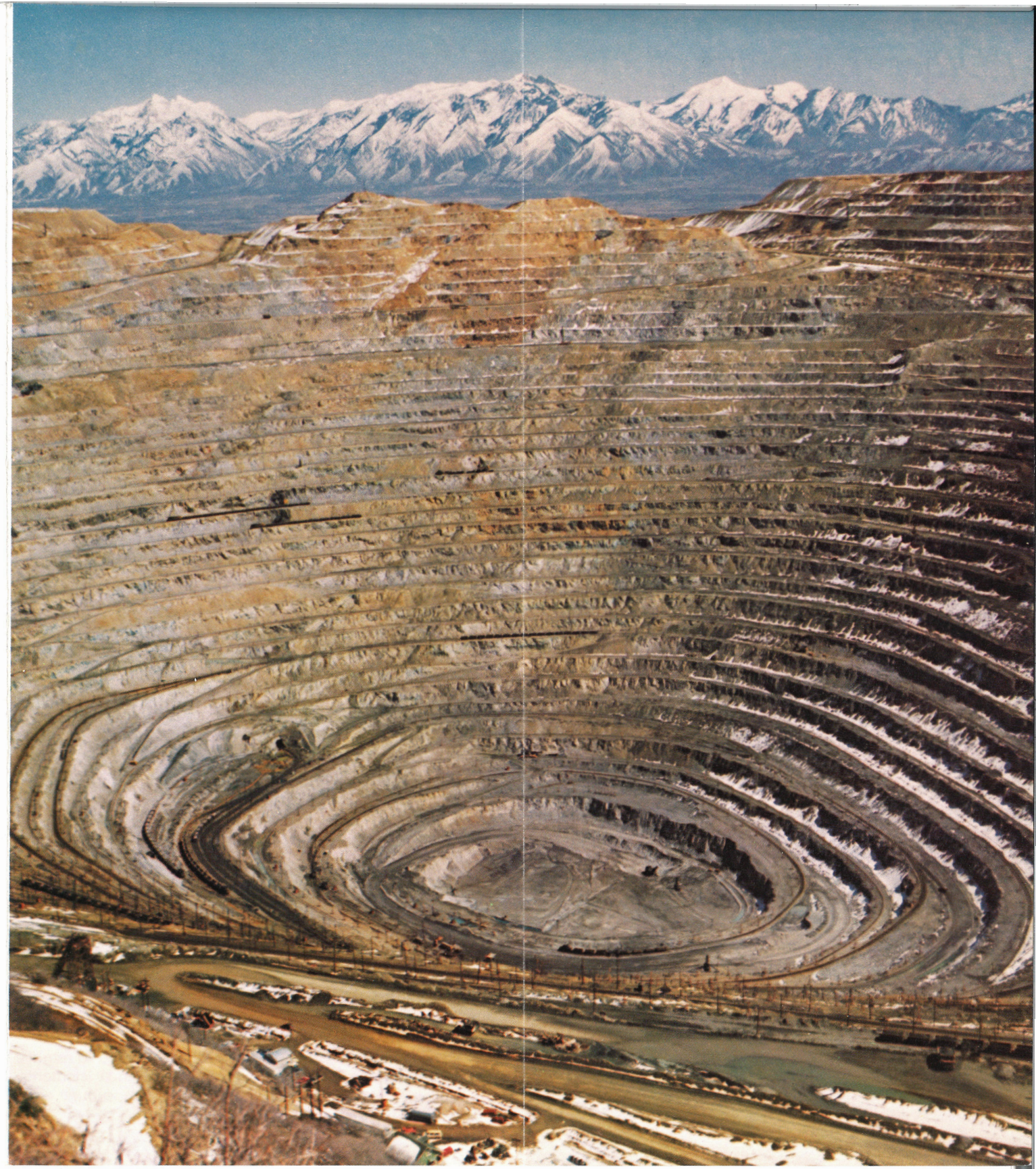
Kennecott Minerals Company
Utah Copper Division

Bingham Canyon Mine and Plants

**of this integrated copper
production operation.**



Precipitate plant at the mouth of Bingham Canyon.



Other Elements of Utah Copper Division

Trains, foreground, deliver 107,000 tons of ore daily 17 miles from mine to Arthur (below), Magna and Bonneville concentrators. Ore is crushed and ground, then sent through a flotation process to remove copper, molybdenite and other nonferrous minerals. The waste flows to the tailing pond, middle background. In the distance, Antelope Island in Great Salt Lake.



Copper concentrate and precipitate are smelted to remove sulfur, iron and other impurities. Copper 99.6% pure is cast in anodes for electrolytic refining. Above, new elements of the Utah smelter include a 1,200-foot stack, huge smelting building, gas collection and cleaning system, sulfuric acid plant and ancillary facilities. More than half of the new plant facilities are devoted to air quality control.

Photos by Don Green



The product of Utah electrolytic refinery is 99.96% pure copper cathodes, as shown above, which are 37 inches wide, 39 inches long and weigh 340 pounds. Refinery byproducts include gold, silver, selenium, platinum and palladium.



Strings of ore haulage cars bend around the division's power plant, beyond which is the Magna concentrator. Using coal as primary fuel, the 175,000-kw generating facility supplies electricity for all division plants.